

ABSTRACT

The present invention is a digital watermarking technique Phasemark™ for image authentication. Using a signature extracted from the original image, the present invention hides an encoded version of the signature back into the original image, forming the watermarked image. The hiding is done in the frequency domain. Specifically, the present invention is a new transform domain digital watermarking technique that hides a signature obtained from the Fourier phases into the magnitude spectrum of the same host image. The detection process computes the discrete Fourier transform of the watermarked image, extracts and decodes the embedded signature, and then correlates it with calculated phase information. Correlation metrics determine the degree of authenticity of the image.